

AN ABSTRACT OF THE THESIS OF

Paul T. Killpatrick for the degree of Doctor of Philosophy in Postsecondary Education presented on January 25, 1990.

Title: The Relationship Between Benefits from a GED Certificate and the Age Group (Life Cycle Phase) of the Recipient

Redacted for Privacy

Abstract approved: _____

This study sought to determine the relationship between self-esteem, employment, and educational benefits from a GED certificate and the age group (life cycle phase) of the recipient. A questionnaire was mailed to a representative group of GED graduates in Oregon; the unadjusted response rate was 59 percent ($n=115$). The three highest percentage rates were used to illustrate the relationship between GED benefits and age groups. For educational benefits, the 16-18, 19-22, and 23-28 age groups had the highest percentage levels (82%, 88%, and 86% respectively). For pre- and post-GED employment benefits, the 16-18, 23-28, and the 51+ age groups had the highest percentage levels (36%, 29%, and 33% respectively). For job promotion, the 16-18, 23-28, 35-43, and 44-50 age groups had the highest percentage levels (29%, 25%, 25%, and 33% respectively). For securing a better job, the 16-18, 19-22, and 44-50 age groups had the highest percentage levels (67%, 47%, and 50% respectively). In self-esteem, 100 percent of the respondents in age groups 29-51+ reported improvement in self-esteem.

THE RELATIONSHIP BETWEEN BENEFITS
FROM A GED CERTIFICATE AND THE AGE GROUP
(LIFE CYCLE PHASE) OF THE RECIPIENT

by

Paul T. Killpatrick

A THESIS

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Doctor of Philosophy

Completed January 25, 1990
Commencement June 1990

APPROVED:

Redacted for Privacy

Professor of Education in Charge of Major

Redacted for Privacy

Chair of Postsecondary and Technological Education

Redacted for Privacy

Dean of College of Education

Redacted for Privacy

Dean of Graduate School

Date thesis is presented _____ January 25, 1990

ACKNOWLEDGEMENT

Beginning a dissertation is like beginning life--it is both a blessing and a burden. Seldom is research ever completed by one individual working alone; this study is no exception. The completion of this thesis would not have been possible without the support of many: Bernadette Rouyer, my friend, confidant, and critic; the support services of Chemeketa Community College; Robert Clausen, former State Director of the GED program in Oregon; and all the community colleges who participated in this study. For all the other people not mentioned (and there were many), thank you for your time, your expertise, and your patience.

I would like to dedicate this dissertation to my niece and nephew, Jennifer and Joey Shackelforth. May they reach educational goals not even dreamed of by Unca Paul. But most of all, I dedicate this study to my parents, Lawrence and Adelita Killpatrick, for their unconditional love.

TABLE OF CONTENTS

Chapter

I. INTRODUCTION	1
General Statement of the Problem	6
Rationale for the Study	7
Limitations for the Study	8
Definition of Terms	9
II. REVIEW OF LITERATURE	11
Profile of GED Populations	11
GED Graduates as Uniform Groups	13
GED Follow-Up Studies Using Age in Subgroup Analysis	17
Life Cycle Phase Theory	23
Summary	27
III. METHODS AND PROCEDURES	29
Selection of Population	30
Development of Survey Instrument	31
Panel of Experts	32
Use of Incentives	33
Procedure for Data Collection	33
Adjusted/Unadjusted Response Rates	34
Statistical Procedures	34

IV. RESEARCH FINDINGS	37
Demographic Data	37
Results of Hypothesis Testing	41
V. DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS	46
Results of Hypothesis Testing	46
Discussion of the Findings	47
Relationship of Specific Age Groups to GED Benefits	47
Maturation	48
Participation in Post-GED Education	48
Shared Response Patterns	48
Contrary Findings	49
Interpretation of Findings in the Context of Previous Research	50
Relationship Between Age and Benefits	50
Increase in Self-Confidence	51
Life Cycle	51
Conclusions	51
Recommendations for Future Studies	53
General Recommendations	53
REFERENCES	55

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. GED Examinees by age group in the USA and its territories	3
2. Comparison of demographics between the national and Oregon GED studies	16
3. Population surveyed relative to the community college educational districts	38
4. Categories of respondents by age and gender	40
5. Results of hypothesis testing	42
6. Employment status pre/post GED	43
7. Percentage of respondents receiving benefits, by age group	45

APPENDICES

A. Description of Community College Service Districts	62
B. Questionnaire	63
C. Panel of Experts	67
D. First Letter to Participants	68
E. Post Card Follow-Up	69
F. Third Follow-Up	70

THE RELATIONSHIP BETWEEN BENEFITS FROM A GED CERTIFICATE AND THE AGE GROUP (LIFE CYCLE PHASE) OF THE RECIPIENT

I. INTRODUCTION

Many adult learners view attainment of the GED (General Educational Development) certificate as one of the most viable options for securing a high school diploma equivalency and thus as the passport to a brighter future (Reed, 1984). According to Sheehy (1976), in every person's life various events occur which they share as a common experience with the lives of other adults. If Sheehy is correct, are the benefits experienced by GED graduates shared among other GED graduates in the same age group (life cycle phase)?

Shared experiences can influence a person's life and future (Spierer, 1981). As people mature, they pass through stages of personal and psychological development which, when closely observed, tend to cluster within or around specific age ranges (Moss & Ferguson, 1987). Current life cycle research on adults indicates that participation of specific age group categories could determine differences in benefits from education (Cross, 1981).

Age and Participation in Adult Education

Participation in adult education is clearly related to age (Tough, 1977; Boaz, 1978). In the last 20 years, the United States has recorded growth in the participation of adults in education and learning experiences

(Charner, 1980). Increasingly, there has been an awareness of and accommodations have been made for adults participating in postsecondary education (Stalford, 1978). This is demonstrated in Table 1 from the 1987 GED Statistical Report.

In 1987, the highest rate of participation in the GED testing program was for the 20-24 age group (24%) and the lowest for the 60+ age group (0.9%). After age 55, participation dropped off sharply. Almost 90% of all examinees who took the GED were under 40 years of age, over 33% were under 20 years of age, and slightly over 10% were under 17 years of age. The average age was 26.1 (1987 GED Statistical Report, 1987).

Table 1. GED examinees by age group in the USA and its territories, 1987.

Age group (years)	Participation rate (%)
17 and under	9.6
18-19	23.9
20-24	24.0
25-29	14.6
30-34	10.2
35-39	6.8
40-49	7.2
50-59	2.8
60+ over	.9

From 1987 GED Statistical Report (1987).

GED Tests Program

For nearly 50 years, the tests of General Educational Development (GED tests) have been used to assess skills representative of the typical outcomes of a traditional high school education (Swartz, 1987). The scores earned by examinees have been used to determine eligibility for a high school equivalency certificate (Duncan, 1982).

According to Whitney (1989), GED certificates make up one-sixth of all high school diplomas awarded in the United States. One-twentieth of all new students entering college are GED certificate holders.

The GED testing program was begun in 1942 to assist World War II veterans in readjusting to civilian life and pursuing higher educational and vocational goals. In 1947 nonveteran adults were allowed to take the GED tests for the first time, and by 1959, the number of nonveteran adults exceeded the number of veterans who had taken the tests.

The GED testing program has undergone only one major revision (Dauzat & Dauzat, 1987). In 1978, the GED tests were reviewed and revised in order to better reflect the long-term objectives of secondary education and the mix of students who composed the senior classes of secondary schools. Since 1982, the content of the five subject areas (writing, social studies, science, interpreting literature and the arts, and mathematics) have been updated periodically to ensure that the skills measured represent those currently found in the typical high school curriculum. Current editions of the GED tests were developed to match

specifications defined in the mid-1980s by committees of high school and adult education curriculum specialists (Whitney, 1985).

The most current review of the GED tests was performed in 1985 and published in The Ninth Edition of the Mental Measurements Yearbook. Working independently, researchers Ahmann (1985) and Passow (1985) confirmed the reliability, validity, and overall effectiveness of the GED tests.

The foundation of the tests is a representative sampling of high school curricula contents and skills. Credentials are awarded based on the examinee's test performance relative to the demonstrated achievement of a representative sample of graduating high school seniors (Passow, 1985).

A norming study was conducted which included students from grades 9, 10, 11 in addition to the grade 12 reference group (Ahmann). The latest GED tests are normed for 9th through 12th grade high school students. In 1980, compulsory age for school attendance dropped from 18 to 16 in some states, making it necessary to analyze the test performance of students below grade 12 (Ahmann, 1985). The levels of achievement of students in the 12th grade were greater for the five GED tests than were the levels of achievement for students in the 9th grade. Ahmann concluded that GED examinees involved in the study had somewhat lower scores than the students in the 12th grade, but definitely higher scores than the students in the 9th grade.

General Statement of the Problem

Prior to 1986, little was known beyond general demographics about different types of GED graduates (Valentine & Darkenwald, 1986). Researchers (Cervero, 1982; Behal, 1983; Reed & Malizio, 1984) recorded frequencies of benefits experienced by GED graduates but made no attempt to determine why some individuals accrued many benefits from receipt of a GED certificate and others benefitted little or not at all (Valentine & Darkenwald, 1986).

A review of the literature indicated that a common denominator in three independent GED follow-up studies was the age of the GED graduates and a possible relationship to benefits received (Thompson, 1985; Valentine & Darkenwald, 1986; and Carbol, 1987). The majority of successful graduates in these three studies were between the ages of 29 and 34. This leads to speculation on the part that age (life cycle phase) plays in determining specific benefits after receiving a GED certificate.

GED follow-up studies showed that benefits after completion of a GED were determined by self-esteem, employment, and educational success GED graduates experienced. Criteria of benefits were identified through an examination of previous studies (Cervero, 1982; Behal, 1983; Sabinio & Seaman, 1988; Thompson, 1985; Valentine & Darkenwald, 1986). Benefits included post-GED education, positive changes from pre- to post-GED employment, and an increase in self-esteem.

The purpose of this study was to determine whether or not a relationship exists between types of benefits obtained from a GED certificate and the age group (life cycle phase) of the recipient.

Hypothesis 1

There is no significant relationship between increased attendance benefits in post-GED education and the age group (life cycle phase) of the GED recipient.

Hypothesis 2

There is no significant relationship between increased employment status benefit and the age group (life cycle phase) of the GED recipient.

Hypothesis 3

There is no significant relationship between the increased self-esteem benefit and the age group (life cycle phase) of the GED recipient.

Rationale for the Study

If adults do pass through predictable cycles during adult development, then in order to better serve the needs of the GED adult population differences in predictable development life cycle phases must be taken into consideration (Lasker & Moore, 1980). If age is indeed a variable that has not been considered when measuring benefits from GED acquisition, then such a variable merits study.

According to Riverin-Simard (1988), in order to improve the quality of adult education, it is necessary to incorporate more directly the theories of adult development into larger educational objectives. One of the broad

educational theories in adult development which could translate into a workable objective is that adults go through predictable development cycles (Vaillant, 1972; Levinson, 1974; Gould, 1975). The life cycle phases are in part related to age (Levinson, 1974).

Research studies on adults 18-80 years of age confirm the broad hypothesis that personality does change perceptibly as people grow older (Neugarten, 1968; Gould, 1972; Sheehy, 1976; Levinson, 1978). The changes in personality are not merely caused by the passage of time, but by the varying nature of the biological and social events that occur with the passage of time (Chickering & Havinghurst, 1981). Adult education from youth to old age can be seen as a process of adaptation in which personality is the central element.

The last statewide GED study performed in Oregon was in 1981 (Duncan). Because of the scarcity of GED research in Oregon it is useful to know something about this particular group because it constitutes an important sample from a representative group of community colleges in Oregon.

Limitations of the Study

1. The results of this study could have been influenced by the number of students who took the GED exam and the time of year testing was done.
2. There may be more benefits to GED acquisition other than the ones tested for in this study.

3. No attempt was made to survey GED examinees who failed the GED exam, to see whether a relationship existed between age and failure to achieve a GED certificate.

Definition of Terms

Adult Education: process by which the instructional needs of adults, as perceived by themselves or others, are met through organized learning experiences; i.e., education (National Advisory Council on Adult Education, 1980, p. 3).

Adult Learner: an Adult Basic Education student; any individual who has attained the age of sixteen and lacks sufficient mastery of basic educational skills to enable him/her to function effectively in society (Adult Education Act, P.L. 95-561).

Affective levels: pertaining to feelings or emotions, especially to pleasurable or unpleasurable aspects of a mental process.

Age groups: the population sampled in this study were divided into seven age groups (Gould, 1975): 16-18, 19-22, 23-28, 29-34, 35-43, 44-50 and 51 and over.

General Educational Development (GED) tests: national testing program for adults to demonstrate the acquisition of developed abilities normally acquired through completion of a high school program of study (GED Testing Service, 1981, p.5).

Independent learner: individual who becomes actively involved with the GED without enrolling in a recognized educational program; also known as field independent (Moore, 1982 p.7).

Dependent learner: individual who becomes actively involved with the GED test through a preparative course of study; i.e., Adult Basic Education Programs (ABE), Job Partnership Training Programs (JPTA); also known as field dependent (Moore, 1982, p.7).

TABE: (Test of Adult Basic Education) a test used primarily as a diagnostic and prescriptive instrument; measures reading, vocabulary, mathematical reasoning, and basic mathematical skills and is correlated with the California Short-Form Test of Mental Maturity (Donnarumma, 1980).

Life cycle phase: a period in an adult's life cycle marked by personal and psychological developments that tend to cluster within or around specific age ranges (Moss & Ferguson, 1987).

II. REVIEW OF LITERATURE

The topics discussed in this chapter are: (a) research profiles of GED populations (to see if GED examinees warrant separate classifications from other populations); (b) GED follow-up studies from 1982, that viewed GED graduates as uniform groups receiving uniform benefits; (c) research that recognized GED populations as diverse groups eligible to receive diverse benefits; (d) theory base of life cycle phase research which examined the role that age may play within age-specific groups vis-a-vis completing a GED test and achieving success. A summary is provided at the end of the chapter.

Profile of GED Populations

The usual method of educational research is to learn something about a large group of people by studying a much smaller group of people (Borg, 1983). The nature of the student is central to any decision an adult educator makes (Wilson, 1980). Ulmer (1969) stated that ABE/GED programs must start at the beginning level of students and help guide them where they wish to go.

Wilson (1979) generated a "personological profile" of GED students, using an Adjective Check List (ACL). The checklist was given to students at the time of their orientation. Wilson defined personological as the relationship between a person's self-image and his behavior. Self-descriptions of GED students were based on the ACL. The instrument

was designed to measure personality variables revealing the students' self-perceptions.

Wilson's findings indicated that GED students described themselves as being more calculating and manipulative than the normal population. Students surveyed tended to be worried, critical of themselves and others, more anxious, less self-confident, and less adequately socialized. Students pursuing a GED certificate were characterized as disliking delay and as being more disposed toward action than reflective thinking. The students exhibited self-image deviations from the expected norms prior to their withdrawal from high school. In a study by Anderson and Niemi (1970), students enrolled in ABE/GED programs were found to have low self-confidence, low self-esteem, and a tendency to withdraw into their own conceptual and social world.

Similar findings were reported by Roessel (1954) who used the Minnesota Multiphasic Personality Inventory (MMPI) to study personality differences between students who graduated from high school and those who did not. On nine of the ten MMPI scales, the dropouts scores were significantly more divergent from the norm than were the scores of those who were graduated. Roessel found that the earlier the student withdrew from an educational setting, the greater the deviation of the 9th grade score from the norm.

In addition to being different from the normal population of students, GED enrollees exhibited differences within their own grouping. Martain (1987) categorized six broad lifestyle classifications of adults who did not

finish high school and enrolled in ABE/GED programs. These lifestyle classifications were based on two variables--means of financial support and degree of socially acceptable behavior--and ranged from "superior" to "undesirable."

GED Graduates as Uniform Groups

National GED Studies

Malizio and Whitney (1981), Cervero (1982), and Behal (1983) performed the first national follow-up studies on GED students. Their studies shared the same sample group, randomly drawn from 10% of the 2,290 GED testing centers in the United States. Malizio and Whitney (1981) gathered detailed information on demographic characteristics, reading habits, prior schooling, and academic preparation of the examinees. Cervero (1982) focused on the employment and training activities of the same grouping of GED candidates, and Behal (1983) examined the postsecondary educational patterns, types of programs selected, and possible differences between GED examinees who enrolled in higher education and those who did not.

One major commonality identified in GED follow-up studies, was the belief held by GED candidates that a GED certificate is a passport to greater opportunities both economically and socially (Malizio, 1981; Moore, 1982; Cervero, 1982). Research has shown that while GED students are involved in a study program, a variety of major changes do occur in their

affective level, like self-confidence and self-esteem; however, in the area of economic change (employment) there are only minimal changes (Fellez, Conti, & Brekedbaum, 1981; Walker, Ewert, & Whaples, 1981). After completion of the GED certificate, some participants show measured improvement in the area of employment (Behal, 1983).

Cervero (1982) found that 95% of the respondents were extremely positive about their GED experience. Respondents reported that the GED was more helpful in obtaining a new job (52%) than in improving the situation in their current job (20%). The GED graduates also found the GED to be more helpful in attaining admittance to educational institutions (51%) than to on-the-job training (24%). During the 18 months following the initial survey, 45% of the respondents were students in some type of educational program and over 75% planned to attend an educational program in the future.

Cervero's study data indicated that GED graduates viewed the diploma primarily as a way of "moving up" in the system. Only 25% took the GED for their own personal satisfaction. Most candidates planned to use the credential for utilitarian purposes and it did meet their expectations. These findings coincided with those of Malizio & Whitney (1981).

Behal (1983) was one of the first analysts to classify GED graduates into different categories in a national study. She used age, gender and the highest grade level completed to classify the benefits received from a GED. Behal's findings showed a higher percentage of GED graduates

between the ages of 15-19 (21%), and between the ages of 30-34 (23%), enrolled in community colleges. GED graduates in their late 30s had a higher percentage of enrollments in technical schools and apprenticeship programs.

Behal's findings that completion of a GED offers post-GED educational benefits concurred with the findings of Cervero (1982). By using age as a variable to help determine educational benefits, her results showed a possible relationship between the age of the GED examinees and the type of benefits they received relative to postsecondary education enrollment.

Oregon GED Study

Most of Malizio and Whitney's (1981) information consisted of demographic findings. A GED study by the State of Oregon (Duncan, 1982) paralleled the findings of Malizio and Whitney (see Table 2).

The Oregon GED follow-up study (1982) appeared to represent a microcosm of the GED National study conducted by Malizio and Whitney (1981). In the Oregon study (Duncan, 1982), 2,000 candidates were surveyed, while in the national study, 13,000 candidates were surveyed. With the exception of ethnicity, the figures were very similar. In both studies, people in their early 20's comprised the majority group.

Table 2. Comparison of demographics between the national and Oregon GED studies

	National Study ¹ (%)	Oregon Study ² (%)
21 or under	51	65
Female	58	51
Male	42	49
White	79	74
Black	18	3
Other	3	3
Employment	39	39
Further education	30	26
Self-satisfaction ³	25	23
Prepared for GED	80	81

1. From Malizio and Whitney (1981).

2. From Duncan (1982).

3. Self-satisfaction was given as the reason for taking the GED exam.

Other State GED Studies

An analysis that looked at eight different follow-up studies in seven different states of the United States (and the Canadian province of Saskatchewan) was performed by Sabino and Seaman (1988). Most of the studies surveyed employment rates of GED graduates and their current participation in education, and five studies surveyed the personal growth achieved by the graduates. The studies analyzed by Sabino and Seaman showed an increase in employment following GED acquisition that averaged from 8% to 26%; participation in new training and education also averaged from 8% to 46%. However, the most common response was an increase of self-confidence and higher feelings of self-worth (affective domain). Similar findings have been recorded by Nelson (1975), Parker (1976) and Reed and Malizio (1984).

GED Follow-up Studies Using Age in Subgroup Analysis

According to Knowles (1973), when a field of study gains the stability that comes from definition, differentiation, standard-setting, and technological refinement, it develops a need for status and esteem. During the phase of stability, a need develops for a more sophisticated round of surveys, descriptive as well as comparative, to show how far the field has matured since its original definition and differentiation.

Prior to 1982, few attempts were made to classify GED populations into distinct groups eligible to receive diverse benefits. Variables that

could account for differences in benefits received by different groups of graduates went largely untested. After 1982, researchers began to look at GED students as a diversified group. By using more sophisticated rounds of inquiry, researchers have classified respondents into subgroups based on benefits received. Moore (1982), Thompson (1985), Valentine and Darkenwald (1986), Carbol (1987), and Moss and Ferguson (1987) tested GED graduates and nongraduates using variables such as age and field dependence.

Moore's research (1982) was designed to measure the impact of the GED on the lives of Kentucky adults who passed or failed the test during 1976. Moore conducted the follow-up study 5 years after the adults tested for the GED. The rate of response, 28.5%, was comparable to rates of responses in other studies that used a much shorter follow-up period (1 or 2 years): 29.5%, Cervero (1982); 35%, Behal (1983); and 29%, Thompson (1984). According to Kerlinger (1964), ABE/GED students are known to be highly transient, thus contribute to a low response rate for follow-up surveys.

Moore's study confirmed conclusions of previous studies reporting that successful GED candidates were able to improve their employment status significantly more than unsuccessful GED candidates (Reed & Malizio, 1984; Theile & Sloan, 1984). However, the main thrust of Moore's research was to explore a difference between the success ratio of dependent and independent learners. Moore compared the employability status of the independent learner and the dependent learner and found a

difference of 7% in favor of the independent learner. The advantage in favor of the independent learner was mirrored in an income increase (26% to 41%) and completion of higher educational goals (66% to 75%).

Moore's findings on independent students agreed with those of a study performed by Donnarumma (1980) in which participants who passed the GED were found to be significantly more independent, while those who failed or dropped out of the program were found to be relatively more dependent. Independence was related to higher math and reading scores on the TABE and GED exams.

In a Section 310 Project, it was reported that employers often view GED graduates as older, more highly motivated and more mature than their high school graduate counterparts (GED Credibility and Acceptability, 1987). Thiele and Sloan (1984) found that employers felt that GED graduates possess an enhanced self-image, which is reflected in their job-related success.

GED Participation, Age, and Desired Outcomes

Walker et al. (1981) conducted a review of ABE/GED students in Maryland. The students had not yet completed the program when they were surveyed for anticipated benefits they hoped to achieve as a result of further education. Walker et al. found that younger participants in ABE/GED classes were there chiefly for work-related reasons. The reasons for needing a GED were related to finding employment, getting better jobs, keeping present jobs, or continuing one's education.

Of the participants between 31 to 40 years of age, 28% reported that the main reason for attending ABE/GED classes was to get a diploma in order to continue their formal education. Adults over 40 reported that the main reasons for attending ABE/GED classes were related to self-improvement. Walker et al. reported that as age increased, so did the tendency to report increased self-confidence. The increase in self-confidence was reflected in the way the respondents felt about conferences with teachers. The findings related to search for employment have been supported by other studies that surveyed examinees after the completion of a GED (Malizio & Whitney, 1981; Cervero, 1982).

The findings of Walker et al. highlighted the relationship that exists between participation in adult education, age, and desired outcomes. Findings of the Walker et al. study have been supported by findings of other studies that have employed a similar research approach (Tough, 1977; Stalford, 1978; Boaz, 1978).

Thompson (1985) substantiated previous research findings of others in terms of benefits received from gaining a GED certificate (Sharon, 1972; Nelson, 1975; and Ayers, 1980). In Thompson's study, 40% reported getting a better job, 15% reported keeping a job, 12% reported getting a promotion, and 80% reported an increase self-worth and confidence (affective levels). Similar findings have been reported in other GED follow-up studies employing similar methodology (viz., Parker, 1976; Gaskin, 1982).

After reviewing Thompson's findings, an age-related benefit pattern started to emerge from the data. The age group 22-30 accounted for the highest percentage of GED benefits: employment (57%), income (27%), enrollment in college (42%), and vocational technical training (33%). In addition, this group accounted for the highest percentage of gain in basic skills (56%). The 31-66 oldest age group showed the lowest level of benefit in the area of employment and accounted for the highest percentage of no responses (1985).

According to Valentine and Darkenwald, research prior to 1986 research did not attempt to "cut across" the benefit variables and determine why some individuals accrued many benefits from a GED certificate while others benefited few. In their study, Valentine and Darkenwald found that GED examinees were not a uniform group receiving uniform benefits. Patterns emerged which indicated varying degrees of benefits.

Data were collected by questionnaire, 14 to 18 months after examinees had completed their GED, to allow effects of certification to materialize. Using factor and cluster analysis, Valentine and Darkenwald clustered the respondents according to benefits received. The Five categories were empirically derived and were labeled "Type One," "Type Two," etc.

Type One Group was distinguished by a high level of further education.

Type Two Group reported an improved self-image (average age 40).

Type Three Group reported an increased income (average age 28).

Type Four Group reported job advancement (average age 27).

Type Five Group scored comparatively poorly on all four levels of benefits. Members of this group were slightly younger than the average age for the rest of the respondents (p. 32).

Groups Two, Three, and Four had an average age of 32. Carbol (1987) illustrated differences that may occur in relationship to age and benefits accrued from a GED. Carbol showed that the GED-fail group was significantly younger than the GED-pass group. The average age for the GED-pass group was 32.7 years, while the GED-fail group averaged 28.3 years. The GED pass-group (21%) reported that the GED certificate did not benefit them in any way, and the GED-fail group (39%) indicated no benefit (Carbol).

Moss and Ferguson (1987) examined GED scores of former dropouts in terms of Cross's (1981) life cycle phases. Moss and Ferguson concluded that the academic performance of the subjects was quite distinctive in reference to the phase theory age category proposed by Cross. As the ages within the life cycle groups increased, there was a corresponding improvement in test scores. Moss and Ferguson concluded that it was reasonable to assume that the information, experiences, and understanding that the examinees encountered during the phases of their lifetime had an accumulating and positive effect on their test results. The 35 and older age group showed the greatest mean score on GED tests by phase theory category.

Life Cycle Phase Theory

In the area of life cycles, there are two viewpoints. Some researchers view the life cycle stages almost totally in terms of events per se, seemingly without regard to the ages at which the events take place--although they often do report typical ages at which particular events occur (Erikson, 1959; Kohlberg 1969, and 1981, Loveinger, 1976; Perry, 1970, 1981). This approach is referred to as the stage theory approach (Moss & Ferguson, 1987).

Other researchers view the life cycle stages in terms of typical age ranges at which events typically occur (Neugarten, 1968, Lowenthal, 1975; Gould, 1975; Levinson, 1978, Lasker & Moore, 1980, McCoy, 1977, Weathersby, 1978). This approach is referred to as the phase theory approach (Cross, 1981). Phase theory researchers generally report between five and seven significant age periods for an adult.

Speculation about individuals going through specific changes of life during certain predetermined periods has existed for thousands of years (Spierer, 1981). The Hindu scriptures in the second century A.D. India described four distinct life stages, each calling for its own fresh response: student; householder; retirement, when the individual was encouraged to become a pilgrim and begin his true education as an adult; and the final state, "sannayasin" (defined as "one who neither hates nor loves anything") (Smith, 1958, p. 58).

Research on life cycles began in the 1920s. The team of Miles and Miles (1932) studied the correlation between intelligence score and

chronological age from early to late maturity. Many methods have been used to categorize and describe life phases: Frenkel-Brunswik (1968) used biographical studies of the lives of well-known people; Buehler (1962) included clinical studies utilizing in-depth interviews of people reflecting on their own life cycles; Aaronson (1966) and Braun (1973) performed factor analysis of multiple variables in an effort to empirically group together related characteristics; and card-sorting descriptions of hypothetical people into similar age groups was performed by Fry (1973, 1976).

According to Spierer (1981), there are no absolutes in transitions. Cross (1981) believed that all chronological age categories should be considered rough estimates at best. But a school of thought among researchers claims that adult development implies a kind of growth schedule common to all individuals (McCoy, 1977; Gould, 1972; Vaillant, 1972; Levinson, 1974).

Levinson (1974) believed in "relatively universal, genotypic, age-related adult development periods." Lowenthal (1975), on the other hand, defined groups by social role rather than age and grouped his subjects into four categories: high school seniors, newlyweds, middle-aged parents, and pre-retirement couples.

Cross (1981) believed that educators, counselors, educational researchers, and people who work directly with adult learners find age-related descriptions useful. Cross noted that workbooks and counseling materials have always used age guidelines to help people visualize the life cycle.

Life stages are often defined by societal conventions. That is, the appropriate age period to bear and rear children is socially and biologically defined. The timing for many changes is determined by the prevailing career and family development patterns in our post-industrial society. This timing for the most part is determined by male career patterns--a fact that frequently puts women at a disadvantage in the working world (Chickering & Havinghurst, 1981). Most findings about life cycles, with some important exceptions, come from studies of white, middle- and upper-class men. Findings by Levinson (1978) showed that women encounter a decade or more later what male subjects experienced in their early period of adulthood when they established their identity in the work arena.

According to Knowles (1984), as adults grow and mature they perceive themselves as becoming less dependent and more self-directed. When they reach adulthood, or at that point when self-direction is perceived as psychologically essential, they develop a strong need to be recognized by others as self-directed.

The leading researchers in the field of life cycle phases are Levinson (1974); McCoy, Ryan and Lichtenberg (1978), and Chickering and Havinghurst (1981). They have identified a period of search for stability beginning between the ages of 29 and 34. According to McCoy (1977), specific and predictable characteristics occur during this age period.

Cross (1981) believed that the concern of the younger age (29-34) with order and setting long-range goals, suggests a fairly aggressive search for goal-specific education, and a willingness to conform to

certification and degree. Cross stated that chronological age is instrumental in revealing the position of the learner on the physiological continuum and in the phases of the life cycle.

Gould (1972) found that responses from the 16-17 age group are almost identical to the stable patterns of adults 22-28 years of age, except in age-inappropriate areas (children and job security). Gould found that adults between the ages of 22-28 believe that they are on a relatively true course in life and devote themselves to the mastery of what they are "suppose to do." In contrast, those in the 29-34 age group are beginning to ask "What is this life all about, now that I am doing what I am suppose to do?" and "Is what I am, the only way for me to be?" (p.37). Gould saw the major task of the 29-34 age group to be achieving success in work and marriage.

Summary

GED examinees represent a distinct population (Roessel, 1954; Anderson & Niemei, 1970; Wilson, 1980; Martain, 1987). Follow-up studies on GED graduates prior to 1982 viewed GED examinees as a uniform group receiving uniform benefits (Malizio, 1981; Cervero, 1982). At the national level, Behal (1983) was one of the first researchers to look at GED examinees as a diverse group eligible to receive diverse benefits. Behal found commonalities in diverse groupings of GED students that might explain the success and failure experienced by certain groups.

Other researchers have looked at GED examinees as a nonuniform group eligible to receive diverse benefits: Moore (1982), Thompson (1985), Carbol (1987), Moss and Ferguson (1987), and Valentine and Darkenwald (1986). Different classifications of groups based on benefits obtained have been recognized. In three independent GED studies (Thompson, 1985; Valentine & Darkenwald, 1986; and Carbol, 1987), a benefit pattern related to age emerged. It appeared that the 29-34 age group experienced the most benefits from GED certificate graduation in terms of employment, self-esteem, and post-GED education.

Life Cycle Phase Research

According to the dynamics of phasic life cycle research, there appears to be sound reasons why the 29-34 age group would experience the most benefits from GED acquisition.

The phasic life cycles deals with the responses towards age and changing social expectations as people advance through the phases of adulthood (Neugarten, 1968; Lowenthal, 1975; Levinson, 1978; Weathersby, 1978; Cross 1981).

The other approach to life cycle research is the stage theory approach. It deals with the development of personality, intelligence, and morals (Erikson, 1959; Loevinger, 1976; Perry, 1970; 1981; Kohlberg, 1969, 1981) and is based on events per se, rather than on age ranges at which events typically occur.

As adults mature, they view themselves as becoming more independent and less dependent (Knowles, 1973). A striking parallel exists between the age attained and the benefits received. GED examinees between the ages of 29-34 display many of the characteristics attributed during a search for stability, usually occurring during this phase of the adult life cycle (Thompson, 1985; Valentine & Darkenwald, 1986; Carbol, 1987).

III. METHODS AND PROCEDURES

This chapter discussed the methods and procedures comprising the research design, which includes: a description of the population, procedures for developing the instrument, method of data collection, research question, and statistical procedures.

Based on the review of literature (Thompson, 1985; Valentine & Darkenwald, 1986; Carbol, 1987), a relationship exists between age groups (life cycle phases) and benefits from receiving a GED certificate. The benefits considered in this study included post-GED educational benefits (technical school, job training and college), changes in pre- and post-GED employment status, and increased self-esteem.

The research question for the study was whether or not a relationship exists between types of benefits obtained from a GED certificate and the age group (life cycle phase) of the recipient. To this end, the following null hypotheses were generated:

Hypothesis 1: There is no relationship between age and increased attendance benefit in post-GED education after receiving a GED certificate.

Hypothesis 2: There is no relationship between age and increased employment status benefit after receiving a GED certificate.

Hypothesis 3: There is no relationship between age and increased self-esteem benefit after receiving a GED certificate.

The null hypothesis was chosen because the current literature on life cycle phases did not adequately reflect differences in culture, gender, and ethnicity of the population surveyed. Most researches on life cycle phases have been conducted using white, middle and upper-class males.

study examined GED graduates, a nontraditional group comprised exclusively of individuals who, for one reason or another, did not complete a secondary education. Benefits (i.e., employment, education, and self-esteem) from a GED certificate are generally normed for the middle-class. Nontraditional groups generally do not meet the standards set for the majority but required of the minority.

Selection of the Population

The GED population sampled in the study was a group of GED graduates ($n=194$) who passed the GED examination between July and October 1987. There is no reason to believe that the group surveyed was not representative of any other groups who took the test between July and October 1987. The GED graduates surveyed were selected from an assumed representative sample of five community colleges in Oregon. Names and addresses of the 194 graduates were furnished by the community colleges involved in the study.

The five community colleges used in the study represented one-third of the total community colleges in Oregon. In Oregon, community colleges are the major centers for GED testing. In order to obtain a representative sampling of community colleges, institutions were selected based on geographic areas, different-size communities, and different types of missions (Appendix A).

Based on the work of Gould (1975), the returned questionnaires were divided into seven age categories: 16-18, 19-22, 23-28, 29-34, 35-43, 44-50, and 51+.

Development of the Survey Instrument

The questionnaire was based on the work of Valentine and Darkenwald (1986), who sought to determine the benefits obtained by adults who studied for and passed the GED tests. The questionnaire used by Valentine and Darkenwald was developed based on an examination of previous studies and interviews with adult basic skills educators and students (Appendix B).

Questions from the original instrument that were rewritten in order to generate continuous answers (a range of responses) rather than dichotomous responses (yes-no responses). According to Weisberg and Bowen (1977), better resolution is obtained using other than dichotomous responses.

In order to accommodate the use of factor analysis, the variables were made dichotomous rather than continuous. Valentine and Darkenwald pointed out their own statistical violation as they measured continuous data with dichotomous responses. According to Kim and Mueller (1978), such a violation tended to attenuate the underlying correlations on which factors are constructed. Valentine and Darkenwald doubted the validity of some questions from their original instrument. These questions were omitted from the present study.

Panel of Experts

Since the instrument developed by Valentine and Darkenwald was not referenced in The Ninth Edition of the Mental Measurement Yearbook, it was subjected to a panel of experts to determine content validity. The panel consisted of four Adult Basic Education directors selected from four community colleges in Oregon (Appendix C). The panel members were chosen from a field of 12 ABE directors, for their knowledge and expertise in adult education. Copies of the questionnaire were mailed to the directors who determined the readability and the validity of the questions for the targeted audience (GED graduates). After reviewing the instrument, the panel deemed the questionnaire to be acceptable without any changes for the targeted group.

The questionnaire was then field-tested by five volunteer GED graduates from Chemeketa Community College, selected by their former GED instructors. After completing the questionnaire, the students were asked to answer the following questions:

1. Was the questionnaire easy to understand? (4 yes, 1 no)
2. Were any terms used that they were not familiar with? (5 no)
3. If they were to receive the questionnaire in the mail, would they fill it out and return it? (5 yes)
4. Would receiving \$1.00 for filling out the questionnaire influence the return of the questionnaire? (4 yes, 1 no)

Based on the completed questionnaires and the written responses, a majority of the students appeared to have had no difficulty in using the instrument.

Since it was assumed that all questions were independent from each other and did not affect internal consistency, reliability of the questionnaire was not an issue in this study.

Use of Incentives

According to Courtney (1986), incentives may affect a significant response rate increase. As the number of incentives increase, the response time decreases, and the percentage rate of responses increases. Although more costly, money has been found to be an effective incentive, with the price of a cup of coffee (.50) as a lower limit. Crowley (1959) and Wotruba (1966) suggested that receipt of money with a questionnaire may contribute to the felt obligation of the subject. Because the study population was small (N=194), a \$1.00 incentive was included with the questionnaire in an attempt to maximize responses.

Procedure for Data Collection

A 14-18 month lapse from the date of GED completion to the beginning of this study was used to allow benefits of GED graduation to materialize (Valentine & Darkenwald, 1986). Darkenwald and Valentine (1984) suggested that this particular time frame helped eliminate two serious problems associated with longer follow-up intervals: poor recall and low response rates due to the geographical mobility of the population surveyed.

During the first week of February 1989, a letter explaining the study (Appendix D), a postage-paid return envelope, and a questionnaire with a new \$1.00 bill attached was mailed to each person of the selected group.

One week later, a post card reminder was mailed to those who had not return the questionnaire (Appendix E). Approximately two weeks later, a third (and final) mailing went to those who had not responded. Again, a letter, a copy of the questionnaire, and a postage-paid return envelope were enclosed (Appendix F).

Adjusted/Unadjusted Response Rates

Of the 194 questionnaires mailed, 115 were returned completed and 29 were returned undeliverable. The unadjusted response rate was 59%. Discounting the questionnaires that were undeliverable, the adjusted returned rate was 70%. Data were collected and coded, then were electronically processed by the Oregon State University Survey Research Center.

Statistical Procedures

A satisfactory statistical analysis should possess four qualities: appropriateness, clarity, measurability, and comparability (Young, 1966), the latter being an effort to define the unit of study in such a way as to make it comparable with similar units of study.

The methods of statistical analysis used were cross-tabulations, contingency tables, chi-square, and frequency distribution. Cross-tabulations were used to show the distribution of responses between benefits and age groups (Borg, 1983). Contingency tables were used to show tabular presentations of numerical data; in which knowledge of totals and digits in cells for one variable determined cell frequencies for the values of a second variable (Courtney, 1982). Chi-square was used to determine the overall significance of the study, consistent with common use in ordinal level data (McCall, 1982).

The use of contingency tables was warranted. Post-GED educational benefits did not lend themselves to ordering, or categorical analysis, because GED recipients either received post-GED education or they did not. However, post-GED education did lend itself to nominal and contingency data use. The same was true with employment benefits: either one experienced a gain in employment or one did not.

The data collected were ordinal and nominal; age is ordinal because it could be ordered; self-esteem because it could be ranked. Contingency tables are appropriate for nominal and ordinal data (McCall, 1982).

The dependent variables were post-GED education benefit, increased employment status benefit, and self-esteem benefit. The three highest percentage rates of each benefit were used to illustrate the relationship between GED benefits and age groups.

Education

College, job training, trade or technical school were all considered a post-GED educational improvement. No separate distinctions were made for full-time or part-time enrollment in the analysis of the data.

Employment

Differences between pre-and post-GED employment, post-GED job promotions, and post-GED job improvement, comprised the employment benefits. In order to assess the impact a GED certificate had on the employability of a graduate, it was first necessary to find out the employment status of the recipient prior to receiving a GED certificate. No separate distinctions were made between full- and part-time employment in the analysis of the data.

Self-Esteem

Self-esteem was based on the response to "Getting a GED makes me feel better about myself" (Appendix B) and was cross-tabulated with age.

IV. RESEARCH FINDINGS

This chapter presents research findings, including, demographic data, results of hypothesis testing, and relationship of age-specific groups to GED benefits.

Demographic Data

Five Oregon community colleges were selected based on region, size, mission, and populations served (Appendix A). Table 3 presents percentage of GED graduates relative to the total population surveyed.

Over half (61%) of the respondents were from Linn-Benton and Chemeketa Community College districts. Respondents were 90% White; 6.3% American Indian, 2.7% Black, 0.9% Hispanic, and 1.8% did not indicate ethnic background. According to the 1980 Census, the ethnic distribution in Oregon is 96% White, 1.4% Black, and 2.4% Hispanic. No reliable figures for American Indians residing off reservations were available at the time of the study.

Table 3. Population Surveyed Relative to the
Community College Education Districts

Community College District	GED Graduates Surveyed <u>n</u>	%
Chemeketa	32	27.8
Clatsop	1	0.9
Linn Benton	38	33.2
Portland	15	13.0
Rogue	29	25.1
Total	115	100.0

The respondents were 58% female and 42% male. Table 4 shows the age categories of the respondents by gender. The average age of the respondents was 27 years, and the majority (70%) were 16-28 years old. This participation rate was almost the same as the national survey participation rate for GED graduates in the 16-28 age group (72%) (1987 GED Statistical Report, 1987).

The 19-22 and 23-28 age groups came the closest to having an even distribution of males and females (47% vs. 53% and 43% vs. 57%, respectively). However, in the 29-34 age group, 73% of the respondents were female.

Table 4. Age Categories of Respondents by Age and Gender

Age Group	Male		Female		Total	
	n	%	n	%	n	%
16-18	9	41	13	59	22	100
19-22	14	47	16	53	30	100
23-28	12	43	16	57	28	100
29-34	4	27	11	73	15	100
35-43	3	37	5	63	8	100
44-50	4	67	2	33	6	100
51+	2	33	4	67	6	100
Total	48		67		115	

Variable: Age
 Mean: 27.209
 Std Dev: 11
 Valid cases: 115
 Minimum age: 17
 Maximum age: 68

Results of Hypothesis Testing

The following is a summary of the results of hypothesis testing.

H1: There is no significant relationship between increased attendance benefits in post-GED education and the age group (life cycle phase) of the GED recipient.

A chi-square statistic was used to compare the attendance rate benefits of GED graduates in post-GED education. The results of the study indicate no significant enrollment boost in college or job training regardless of age, but a statistically significant difference was found in enrollment in technical school (Table 5).

H2: There is no significant relationship between increased employment status benefit and the age group (life cycle phase) of the GED recipient.

A chi-square statistic was used to compare the increased employment status benefits of GED graduates. The results of the test indicate that pre-GED employment and acquiring a better job after receiving a GED certificate were found to be statistically significant, while post-GED employments and post-GED promotions were found to be statistically insignificant (Table 5).

H3: There is no relationship between increased self-esteem and the age group (life cycle phase) of the GED recipient.

A chi-square statistic was used to compare the increased self-esteem benefits of GED graduates. The null hypothesis was retained (Table 5).

Three levels of benefits out of seven were found to be statistically significant at the 0.05 level: enrollment in technical school, pre-GED employment, and acquiring a better job since receiving a GED (Table 5).

Table 5. Results of Hypothesis Testing

	Chi-square	DF	p
College	7.04653	6	0.3166
Job Training	7.47477	6	0.2792
Technical School	15.18152	6	0.0189*
Pre-GED Employment	24.58773	12	0.0169*
Post-GED Employment	15.48773	12	0.2158
Post-GED Promotions	1.66411	6	0.9479
Better Job Since GED	13.05514	6	0.0422*
Self-Esteem	7.50312	18	0.9852

* $p < 0.05$

Relationship of
Age Specific Groups to GED Benefits

In the present study post-GED education, positive changes in employment, and self-esteem were considered as indicators of success. Positive changes in employment consisted of job promotions, securing a better job, and comparing job status pre- and post-GED. Table 6 illustrates the differences in pre- and post-GED employment.

Table 6. Employment Status Pre- & Post-GED

	pre %	post %	change %
16-18	32	68	36
19-22	45	66	19
23-28	50	79	29
29-34	60	53	-7
35-43	50	75	25
44-50	84	67	-17
51+	0	33	33

Distribution of Benefits
By Age Groups

The three highest percentage rates were used to illustrate the relationship between GED benefits and age groups. For educational benefits, the 16-18, 19-22, and 23-28 age groups had the highest percentage levels (82%, 88%, and 86% respectively). For pre- and post-GED employment benefits the 16-18, 23-28, and the 51+ age groups had the highest percentage levels (36%, 29%, and 33% respectively). For job promotion, the 16-18, 23-28, 35-43, and 44-50 age groups had the highest percentage levels (29%, 25%, 25%, and 33% respectively). For securing a better job the 16-18, 19-22, and 44-50 age groups had the highest percentage levels (67%, 47%, and 50% respectively). In self-esteem, 100 percent of the respondents in age groups 29-51+ reported improvement in self-esteem.

Table 7. Percentage of respondents receiving GED benefits by age group

Age Group	Education (%)	Employment Difference (%)	Promotion (%)	Better Job (%)	Self-Esteem (%)
16-18	82	36	29	67	95
19-22	88	21	24	48	90
23-28	86	29	25	44	93
29-34	53	-7	13	20	100
35-43	75	25	25	38	100
44-50	33	-16	33	50	100
51+	0	33	17	0	100

V. DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

This chapter includes a discussion of the findings and recommendations. The purpose of the study was to determine whether or not a relationship existed between benefits obtained from a GED certificate and the age group (life cycle phase) of the recipient. Benefits considered in the study were limited to post-GED education, advances in employment, and increased self-esteem.

Results of Hypothesis Testing

Hypothesis 1

Results of chi-square analysis indicated that there was no significant relationship between age groups and enrollment in college or job training, but a statistically significant relationship existed between age groups and enrollment in technical school. Reasons for the difference might have been due to less than a full representation of all age groups enrolling in technical school.

Hypothesis 2

Two areas were found to be statistically significant: pre-GED employment and acquiring a better job after receiving a GED certificate. Two areas of employment were found to be statistically insignificant: post-GED employment and post-GED promotion.

Hypothesis 3

No relationship existed between increased self-esteem and age group (life cycle phase) of the GED recipient. Perhaps a question requiring a more specific example of self-esteem benefits would have produced a statistically significant response.

Discussion of the Findings

Discussion of the findings includes: benefits received by specific GED age groups, effect of maturation, participation and age in education, shared response pattern, contrary findings, interpretation of the findings in the context of previous research, life cycle, and recommendations.

Relationship of Specific Age Groups to GED Benefits

For receiving educational benefits, the 16-18, 19-22, and 23-28 age groups had the highest percentage levels. For pre- and post-GED employment improvement, the 16-18, 23-28, and the 51+ age groups had the highest percentage levels. For receiving job promotion, the 16-18, 23-28, 35-43, and 44-50 age groups had the highest percentage levels. For securing a better job, the 16-18, 19-22, and 44-50 age groups had the highest percentages. For improved self-esteem, the 29-34, 35-43, 44-50, and 51+ age groups had the highest percentage levels.

Maturation

The 16-18 age group had the highest percentage rating in post-GED employment differences and securing a better job. Internal validity becomes a factor when dealing with a population this young. The majority of changes in the lives of those in the 16-18 age group could be due to maturation, independent of receiving a GED certificate. The question of maturation arises whenever a research examines individuals who have not yet reached the age of majority. Campbell and Stanley (1963) defined maturation as any change internal to the subject. During the 18 months following the successful completion of the GED exam, those in the 16-18 age group were continuing to develop physically, socially, and intellectually.

Participation in Post-GED Education

A decline in post-GED education occurred after age 43 (75% for 35-43 vs. 33% for 44-50+ age groups. Findings in the present study concurred with findings of other research. Adult participation rates in education decreases as age increases Charner (1980), Tough (1977), and Boaz (1978).

Shared Response Patterns

A shared response pattern between the 16-18 and 23-28 age groups was found in the present study. With the exception of securing a better job (44% vs. 67% in favor of the 16-18 age group), the 16-18 and 23-28 age groups showed the smallest difference between benefits. Gould

(1972) found that response patterns for the 16-17 age group were almost identical to those in the 22-29 age group, except in age-inappropriate areas (i.e., children and job security).

Contrary Findings

In the present study, the 29-34 age group ranked the lowest in receiving a promotion, and showed a decline in post-GED employment. In three independent studies (Thompson, 1985; Valentine & Darkenwald, 1986; Carbol, 1987), the 29-34 age group were found to experience more success after acquiring a GED certificate. The findings of the present study were contrary to the findings of Cross (1981), who pointed out that younger learners (ages 29-34) were concerned about order and setting long-range goals which suggested a fairly aggressive search for goal-specific education and a willingness to conform to certification and degree.

Why did the respondents in the 29-34 age group surveyed in this study benefit little from acquiring a GED certificate? The most obvious reason would appear to be gender-related differences. The gender distribution for the 29-34 age group was 73% female and 27% male, the strongest female representation among all age groups. For this particular gender/age group, priorities other than further education and positive changes in employment could or should be used to measure success after achieving a GED certificate--if benefits are indeed gender related.

The gender ratio of respondents in previous studies tended to favor females. Research by Thompson (1984) was comprised of 60% females; Carbol (1987), 52% females; and Valentine and Darkenwald (1986), 62% females. When an age category has a dominant representation of one gender and the benefits are thought to favor the other gender, the results should be viewed with caution.

Interpretation of the Findings in the Context of Previous Research

Relationship Between Age and Benefits

In the present study, the majority of GED examinees took the test for utilitarian purposes, primarily for employment or further education. Similar findings were reported by Malizio and Whitney (1981). Self-esteem was the reason given by only 25% of graduates for securing a GED (Malizio & Whitney, 1981; Duncan, 1981). Examinees who were seeking employment and further education were generally younger (under 21) and seeking to get back into the mainstream of society. In the present study, self-esteem was an increased benefit in older age groups. The first national GED study performed by Malizio and Whitney (1981), revealed a relationship between age participation and benefits expected after receiving a GED certificate. Fifty-one percent of the GED examinees surveyed were under 21 years of age. Thirty-nine percent took the test chiefly for job-related reasons, and 30% took the test for reasons related to further education (p. 53).

Increase in Confidence

Older GED graduates surveyed in the present study felt better about themselves as a result of acquiring a GED. A correlation also noted by Walker et al (1981).

Life Cycle

According to the findings of the present study, post-GED education was often desired by younger people under the age of 28. On the other hand, gains in pre- and post-employment appeared to be shared between young graduates (16 to 28) and older graduates (51+). Job promotions were more equally distributed among the age groups (16-18, 35-43, and 44-50). Securing a better job was recorded by younger (16 to 22) and older (44-50) graduates. The highest increase in self-esteem was found for all age groups between 29 and 50. These findings may be misleading because younger GED graduates may already have had a high self-esteem prior to receiving the GED or because they had a more utilitarian purpose in mind in securing a GED certificate.

Conclusions

The findings of this study indicate that factors other than age may influence the success achieved by GED graduates. The implication is that GED acquisition holds no guarantee for educational, economic, or personal improvement, regardless of the recipient's age.

Self-Esteem

The present study along with research by Walker (1981), Cervero (1982), and Malizio and Wentney (1981) cite the significance of acquiring a GED certificate with regards to self-esteem and confidence.

The role of self-esteem is linked with the drive towards positive changes in employment, education, and feelings of accomplishment.

Not all GED graduates benefit from receiving a GED certificate. With current research it is possible to develop the "profile" of a successful/nonsuccessful GED student or graduate. To measure age is not the only indicator of success/failure benefits from a GED certificate, and in some cases, may not be the most accurate. Factors other than age need to be considered: different styles of learning, gender, highest grade completed, and work history. Moore (1982) found that the average number of years in school completed prior to receiving a GED certificate is a success factor for GED graduates. This variable was not tested in the present study. Understanding the influence of different variables might aid in providing a more complete picture of who will, and will not, be successful after receiving a GED certificate. Generated profiles of successful or nonsuccessful students would enable instructors and institutions to better serve the 43% who do not pursue GED graduate education and the 29% who remain unemployed after GED certification (Behal, 1983).

Recommendations for Future Studies

1. Further study is needed to determine the impact of a GED certificate on an individual's life. Future studies should address both the successful and the nonsucessful GED candidates.

2. In this study, females accounted for 58% of the respondents surveyed. In reviewing the literature it was found that the majority of respondents in GED follow-up studies were white, female, and in their 30s. Since gender differences could influence employment, education, and self-esteem outcomes, the gender variable should be explored in future studies.

3. Special effort should be made to reach under-represented groups of GED graduates for follow-up studies: youths below the age of 16, minorities, and people who achieved their GED certificate while in prison.

This study may contribute to an increased awareness in identifying students who may need additional employment and educational counseling after completion of the GED. Additional research on GED examinees will prevent educational institutions from contributing to an ever increasing underclass in American society.

General Recommendations

1. The Oregon GED testing service should identify students who prepared for the GED exam and those who did not. This information would help facilitate follow-up studies.

2. Studies by Wilson (1979) and Martain (1987) have classified GED students into several categories. Martain suggested that GED programs were created to attract students with middle-class norms and values to the exclusion of other learners. Special programs need to be designed based on new profiles of GED students to truly serve high-risk student groups.

3. The use of incentives and their impact on survey participation should be further investigated.

REFERENCES

- Aaronson, B.S. (1966). Personality stereotypes of aging. Journal of Gerontology, 21, 458-462.
- Adult Education Linkage Services (1987). GED credibility and acceptability. Troy, PA. (ERIC Document Reproduction Service No. 289 061)
- Ahmann, J.S. (1985). Review of Tests of General Educational Development. In (J.V. Mitchell, Jr., Ed.) The Ninth Mental Measurements Yearbook (pp. 1611-1614) Lincoln, NE: Buros Institute of Mental Measurements.
- Anderson, D., & Niemi, J. (1970) Adult education and the disadvantaged adult. Syracuse: Syracuse University Continuing Education.
- Ayers, C.V. (1980). An educational and growth study of General Educational Development (GED) of Surry Community College. (Eric Document Reproduction Service No. ED 196 472)
- Behal, E. (1983). After the GED tests: Postsecondary education enrollment patterns and perceptions of GED examinees (GEDTS Research Studies No. 5). Washington, DC: American Council on Education. (ERIC Document Reproduction Service No. ED 272 755)
- Boaz, R. (1978). Participation in adult education: Final report 1975. Washington, DC: U.S. Government Printing Office.
- Borg, R., & Gail, M. (1983). Educational research (3rd ed.). New York: Longman.
- Braun, P.H. (1973). Finding optimal age groups for investigating age related variables. Human Development. 16, 293-303.
- Buehler, C. (1962). Genetic aspects of the self, Annals of the New York Academy of Sciences, 96, 730-764.
- Campbell, D. & Stanley, J.(1963). Experimental and quasi-experimental designs for research. In Gage, N.L. (Ed), Handbook of Research on Teaching (pp.171-246). Chicago: Rand McNally.
- Carbol, B.C. (1987, September). Alberta GED candidates: Program perceptions, benefits, and test performance (GED Research Brief No. 15). Washington, DC: American Council on Education.

- Cervero, R. & Peterson L.(1982). After the GED Tests: Employment and training activities of GED examinees (Research Studies No. 4) The General Education Testing Service on the Council on Education.
- Charner, I. (1980). Patterns of adult participation in learning activities. Worker education and training policies project. The National Institution Of Education U.S. Department of Education.
- Chickering, A.W., & Havighurst, R.J.(1981). The life cycle. In A.W. Chickering et al., The modern american college: Responding to the new realities of diverse students and a changing society (pp.16-50). San Francisco: Jossey-Bass.
- Courtney, W. (1986). Techniques of research. Corvallis: Sanderling.
- Cross, P.K. (1981). Adults as learners. San Francisco: Jossey-Bass.
- Crowley, F. (1959). Compensation of subjects for participation in research. School and Society, 87 (2160), 430-31.
- Darkenwald, G. & Valentine, T. (1984). Outcomes and impact of adult basic education. Research Center for Adult Development Graduate School of Education New Brunswick, NJ Monograph Whole (No. 6)
- Dauzat, S., & Dauzat, J. (1987). A new GED: Gearing up for change. Lifelong Learning, 10(6), 27-30.
- Donnarumma, T., Cox, D.,& Beder,H. (1980). Success in a high school completion program and its relation to field dependence-independence. Adult Education, 30, 222-232.
- Duncan, V. (1982). Oregon 1981 GED Test Performance Studies. [Technical Report] Salem, OR: Department of Education.
- Erikson, E.H. (1959). Identity and the life cycle. Psychological Issues Monograph (Whole 1). New York: International Universities.
- Fellez, R.A., Conti, G. & Brekedbaum, T. (1981). Individual development and adult basic education: A student follow-up (Report No. CE030532). Austin, TX: Texas A & M University, College of Education. Adult and Extension Education (ERIC Document Reproduction Service No. ED 210 436)
- Frenkel-Brunswik, E. (1968). Adjustments and reorientation in the course of the life span. In Middle Age and Aging (pp.77-84). Neugarten, B. (Ed.), Chicago: University of Chicago Press.

- Fry, C.L. (1976). The ages of adulthood; A question of numbers. Journal of Gerontology, 31(2), 170-177.
- Fry, C.L. (1973). The American age grade system: A study of the age-status structure of the United States. (Doctoral dissertation, University of Arizona. Dissertation Abstracts International, 73, 28781.
- Gaskin, F. (1982) GED graduate study: We're making tomorrow today. Palos Hills, IL.: Moraine Valley Community College. (Eric Document Reproduction Service No. ED 242 379)
- Gould, R. (1972). The phases of adult life: A study in developmental psychology. American Journal of Psychiatry, 5, 521-531.
- Gould, R. (1975, February). Adult life stages: Growth toward self-tolerance. Psychology Today, pp. 74-78.
- Kerlinger, F. (1964) Foundations of behavioral research. New York: Holt.
- Kerlinger, F. (1973). Foundations of behavioral research (2nd ed.). New York: Holt.
- Kim, J., & Mueller, C. (1978). Factor analysis: Statistical methods and practical issues (Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-014). Beverly Hills: Sage Publications.
- Kohlberg, L. (1981). The philosophy of moral development. San Francisco: Harper & Row.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D.A. Goslin (Ed.), Handbook of socialization theory and research (pp.347-480). Chicago: Rand McNally.
- Knowles, M. (1973). Sequential research needs in evolving disciplines of social science. Adult Education, 24, 298-303.
- Knowles, M. (1984). The adult learner: A neglected species. Houston: Gulf.
- Knox, A. (1977). Adult development and learning. San Francisco: Jossey-Bass.
- Lasker, H., & Moore, J. (1980). Adult development and approaches to learning. Washington, DC: National Institute of Education.
- Levinson, D. (1974). The psychological development of men in early adulthood and the mid-life transition. University of Minnesota.

- Levinson, D. (1978). The seasons of a man's life. New York: Knopf.
- Loevinger, J. (1976). Ego development: Conceptions and theories. San Francisco: Jossey-Bass.
- Lowenthal, M. (1975). Four stages of life: A comparative study of women facing transitions. San Francisco; Jossey-Bass.
- Malizio, A. & Whitney, D.(1981). Who takes the GED tests? (Research Studies No. 1) The General Education Testing Service on the American Council on Education.
- Malizio, G. & Messersmith, D. The 1987 GED Statistical Report. (1987). The General Educational Development Testing Service of the American Council on Education. Washington, DC.
- Martain, L.G. (1987, Fall). Life-style classification of adult high school noncompleters. Adult Education Quarterly, 38, 32-45.
- McCall, C. (1982). Sampling and statistics. Handbook for research. Ames: Iowa University.
- McCoy, V. (1977). Adult life cycle change. Lifelong Learning, 30, 14-18.
- McCoy, V.R., Ryan, C., & Lichtenberg, J.W. (1978) The adult life cycle: Training manual and reader. Lawrence: University of Kansas.
- Miles, C.C., & Miles, W.R. (1932). The correlation of intelligence score and chronological age from early to late maturity. American Journal of Psychology, 44, 44-78.
- Moore, L. (1982). A follow-up study of adults who were administered the General Education Development Test in Kentucky during 1976. Frankfort, University of Kentucky. Office of Extended Education. (Eric Document Reproduction Service No. 222 58)
- Moss, L. & Ferguson, W. (1987). GED Scores of former dropouts compared by life cycle phases. College Student Journal, 21, 110-117.
- Nelson, J.J. (1975). A follow-up appraisal selected GED tests examinees at McClannon Community college (Report No. CE006733). Waco, TX: American Technological University. (Eric Document Reproduction Service No. ED 121 978)
- Neugarten, B.L. (1968) Adult personality: Toward a psychology of the life cycle. In B.L. Neugarten (Ed.), Middle age and aging (pp.137-147). Chicago: University of Chicago Press.

- Parker, B.K. (1976). Kansas statewide survey of persons successfully completing the General Education Development (GED) test. Unpublished doctoral dissertation, Kansas State University. Kansas.
- Passow, A.N. (1985). Review of Tests of General Educational Development. In (J.V. Mitchell, Jr., (Ed.) The Ninth Mental Measurements Yearbook (pp.1614-1615). NE: Buros Institute of Mental Measurements.
- Perry, W.G., Jr. (1970). Forms of intellectual and ethical development in the college years. New York: Holt, Rinehart and Winston.
- Perry, W.G. (1981). Cognitive and ethical growth: The making of meaning. In A.W. Chickering et al. Associates, The modern American college: Responding to the new realities of diverse students and a changing society (pp.76-116). San Francisco: Jossey-Bass.
- Reed, N.V. & Malizio, A. (1984). Two Years after the GED tests: Employment, education, and training activities of GED examinee. Paper presented at the National Adult Education Conference, Louisville, KY.
- Riverin-Simard, D. (1988). Phases of working life and adult education. Lifelong Learning, 12(2), 24-26.
- Roessel, F.P. (1954). Minnesota multiphasic personality inventory results for high school drop-outs and graduates (Unpublished Doctoral dissertation, Michigan University, Ann Arbor, MI.
- Sabino, M., & Seaman, D.(1988). Follow-up of GED completers: An analysis of eight studies in the U.S. and Canada. Lifelong Learning, 11(7), 4-8.
- Sharon, A. (1972, March). Validity of the Tests of General Educational Development for admission of nonhigh school graduates to higher education. Washington, DC; American Council on Education, Commission on Accreditation of Service Experiences. (ERIC Document Reproduction Service No. ED 064 304).
- Sheehy, G. (1976). Passages: Predictable crises of adult life. New York: Dutton.
- Smith, H. (1958). The religions of man. New York: Harper & Row.
- Spierer, H. (1981). Life cycle. In A.C. Eurich (Ed.), Major transitions in the human life cycle (pp.1-61). Lexington, MA: Heath & Co.

- Stalford, C. (Ed.) (1978). Adult learning needs and the demand for lifelong learning. [Conference Report] Washington, DC: U.S. Department of Health, Education, and Welfare.
- Swartz, R.(Ed.) (1987). The official teacher's guide to the Tests of General Educational Development. Washington,DC: American Council on Education.
- Thiele, J. & Sloan, C. (1984). Impact of the successful completion of the GED on candidates and their employers. [Technical Report] Dekalb County, IL. (Eric Document Reproduction Service ED 244 051)
- Thompson, H.G. (1985). Perception of program benefits ABE/GED in Washington State: A follow-up study. Unpublished master's thesis, Washington State University, Pullman.
- Tough, A. (1977). Major learning efforts: Recent research and future directions. Ontario Institute for Studies in Education.
- Ulmer, C. (1969). Teaching the disadvantaged adult. Washington, DC: National Association for Public Continuing and Adult Education.
- Vaillant, G., & McArthur,C. (1972). Natural history of male psychology health: 1. The adult life cycle from 18-50. Seminars in Psychiatry. New York. Scribner.
- Valentine, T. & Darkenwald, G.G. (1986). The benefits of GED graduation and a typology of graduates. Adult Education Quarterly, 37, 23-37.
- Walker, S., Ewert, D., & Whaples, G. (1981). Perceptions of program impact: ABE/GED in Maryland. Paper presented at the Lifelong Learning Research Conference, College Park, MD. (ERIC Document Reproduction Service ED. 197 201)
- Weathersby, R. (1978). Life stages and learning interests. In The Adult Learner: Current Issues in Higher Education. Washington, DC: American Association for Higher Education.
- Weisbeg, H. & Bowen, B. (1977). An introduction to survey research and data analysis. San Francisco: Freeman.
- Whitney, D. (1989). Performance of Adults on the New GED Tests. Paper presented at the meeting of the American Association for Adults and Continuing Education (AAACE), Atlantic City, NJ.
- Whitney, D., Malizio, A. & Patience, W. (1985). The reliability and validity of the GED Tests. [Research Brief] American Council of Education.

- Wilson, R.C. (1979). Personological profile of community-college high school equivalency students. Community College Review, 6, 52-59.
- Wilson, R.C. (1980). Personological variables related to GED retention and withdrawal. Adult Education, 30, 174-185.
- Wotruba, T.R. (1966). Monetary inducement and mail questionnaire response. Journal of Marketing Research, 3(4), 398-400.
- Young, P. (1966). Scientific social surveys and research (4th ed.). NJ: Prentice-Hall.

APPENDICES

Appendix A

Description of Community College Service Districts

Chemeketa Community College

Salem: Population-97,000

1987 Fall Term Enrollment: 12,883

Women: 7,828 Men: 5,055

Includes Marion, Polk, most of Yamhill, and part of Linn counties. Four satellite centers. In 1987-88 over 30,000 persons enrolled in Chemeketa classes and workshops. Each term about 3,250 students are enrolled full time.

Clatsop Community College

Astoria: Population-10,000

1987 Fall Term Enrollment: 2,905

Women: 2,104 Men: 801

Serves NW Oregon and SW Washington

Linn-Benton Community College

Albany: Population-24,000

1987 Fall Term Enrollment: 11,143

Women: 7,163 Men: 3,980

Currently over 23,000 people take one or more classes through LBCC each year, or a full-time equivalent of about 4,300 full-time students making LBCC the fifth largest of Oregon's 16 community colleges.

Portland Community College

Portland: Population-419,810

1987 Fall Term Enrollment: 34,298

Multi-campus college with three major locations, two centers and a number of satellite locations. Annual enrollment is more than 60,000 students producing about 13,000 full-time equivalent students. PCC enrolls more students than any other college in the state.

Rogue Community College

Grants Pass: Population 15,700

1987 Fall Term Enrollment: 4,202

Women: 2,416 Men: 1,886

Source: 1. 1988-89 Oregon College Guide

2. General College catalogue from respective college.

Appendix B

Adult Education Study

This section asks your opinions about the GED program. Please circle the statement that most correctly reflects your opinion.

1. Think back to your goals when you entered the GED program. To what extent has the GED program help you reach your goals?

- | | |
|------------------------|------------------------|
| 1 MET ALL OF MY GOALS | 3 MET FEW OF MY GOALS |
| 2 MET SOME OF MY GOALS | 4 MET NONE OF MY GOALS |

2. This question asks your opinion about adult education. Please indicate how strongly you agree or disagree with each item by circling the appropriate number.

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	DOESN'T APPLY
a. The classroom instruction I received was very helpful in preparing me to take the GED test.....	1	2	3	4	5
b. I would not have taken the GED test if the adult education program I attended had not been available.....	1	2	3	4	5
c. GED Testing Centers should provide students with information about educational opportunities after they complete the GED.....	1	2	3	4	5
d. Getting a GED doesn't necessarily mean I set a better example for my children.....	1	2	3	4	5
e. I believe that the GED program improved my reading, writing, or make skills.....	1	2	3	4	5
f. Getting a GED doesn't necessarily mean that I am more likely to keep my job.....	1	2	3	4	5
g. Getting a GED improves my chances of getting a pay raise.....	1	2	3	4	5
h. Getting a GED makes me feel better about myself.....	1	2	3	4	5

(PLEASE TURN THE PAGE)

3. Since earning your GED:

Have you enrolled in college?.....	YES	NO
Have you participated in a job training program?.....	YES	NO
Have you enrolled in a trade or technical school?.....	YES	NO
Have you received a promotion?.....	YES	NO
Have you gotten a better job?.....	YES	NO

This section asks questions concerning employment. Please circle appropriate response.

4. At the time you passed the GED test, were you employed:

- 1 FULL-TIME
- 2 PART-TIME
- 3 NOT EMPLOYED

5. Are you currently employed full-time or part-time for pay? (Circle one number)

- 1 YES, EMPLOYED FULL-TIME
- 2 YES, EMPLOYED PART-TIME
- 3 NO, NOT EMPLOYED

5A. ARE YOU CURRENTLY SEEKING EMPLOYMENT?

- 1 YES
- 2 NO

6. Thinking back to the 12 months before you earned your GED, how many months were you employed, if any?

_____ NUMBER OF MONTHS

7. In the year (12 months) after you earned your GED, how many months were you employed, if any?

_____ NUMBER OF MONTHS

Many people these days are receiving unemployment benefits or some form of assistance, such as Food Stamps or Aid to dependent Children (ADC).

(PLEASE TURN THE PAGE)

8. Before you passed the GED exam, were you receiving:

	YES RECEIVED	NO DID NOT
a. Unemployment benefits.....	1	2
b. Public assistance only.....	1	2
c. Other/specify _____	1	2

9. Are you currently receiving:

	YES RECEIVED	NO DID NOT
a. Unemployment benefits.....	1	2
b. Public assistance only.....	1	2
c. Other/specify _____	1	2

10. What was your main reason for deciding to obtain your GED?

11. Once you enrolled, was the GED program what you expected it to be like or was it different?

1 LIKE I EXPECTED

2 IT WAS DIFFERENT

12. Briefly describe how it was like you expected or how was it different.

This section asks some questions about yourself. Please circle the appropriate response.

13. Are you:

1 MALE

2 FEMALE

14. What is your age?

_____AGE

(PLEASE TURN THE PAGE)

15. Which of the following best describes your ethnic group?

- 1 AMERICAN INDIAN (What Tribe?_____)
- 2 WHITE
- 3 BLACK
- 4 HISPANIC
- 5 ASIAN
- 6 OTHER (Please explain_____)

16. Do you have any children under 18 years of age?

- 1 YES
- 2 NO

17. Is there anything else that you would like to say about your experiences going through a GED program? If so, please briefly explain.

THANK YOU FOR YOUR TIME IN FILLING OUT THIS QUESTIONNAIRE.
YOUR RESPONSE DOES MAKE A DIFFERENCE.

Appendix C

Panel of Experts

Dear _____ :

As a recognized leader in adult education in our state your assistance is requested to help validate a questionnaire.

I am a GED instructor at Chemeketa Community College and a doctoral candidate in Postsecondary Education at Oregon State University. For my dissertation I am following a format used by Darkenwald & Valentine, "The Benefits of GED Instruction and a Typology of Graduates" (1986).

Please find enclosed a copy of the proposed questionnaire. Would you please examine the questions and see if they are appropriate for the targeted group.

Your input is extremely valuable. The planning committee will be meeting on October 21, and I would appreciate hearing from you before then.

Please write or call:

Paul Killpatrick
Chemeketa Community College
PO Box 14007, Building 16
Salem, OR 97309
399-6042

Sincerely,

Paul Killpatrick
GED Instructor

cc: Becky Johnen, ABE Director, Chemeketa CC
Carol Evans, ABE Director, Clackamas CC
Ed McMahon, ABE Director, Mt. Hood CC
Pat Amsberry, ABE Director, Blue Mt. CC
Charlene Walker, Staff Development Oregon Dept. of Education

Appendix D

First Letter to Participants

Jane Doe
1111 Place St.
Smalltown, OR 11111

Dear :

I need your help !

I would like your opinion about the Oregon GED program. You passed the GED test recently and are in a good position to provide important information. I am conducting a doctoral study of recent GED graduates. Your answers will help the Department of Education assess the effectiveness of the GED program.

You are one of a small group selected to relate the benefits you have received from earning a GED. Your input is very important. Please fill out the enclosed questionnaire and return it as soon as possible. To insure complete confidentiality, your name is replaced by a number which will appear only on the questionnaire. No one will know your identity. Before you begin filling out the questionnaire, I would like you to take the enclosed \$1.00 and buy yourself a cup of coffee and take a few minutes to fill-out this survey.

The results of this doctoral thesis will be made available to officials and representatives in our state government, community college administrators, and other interested citizens. You may receive a summary of results by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it. PLEASE DO NOT PUT YOUR NAME AND ADDRESS ON THE QUESTIONNAIRE ITSELF.

I would be most happy to answer any questions you might have. Please write or call (503) 399-6042.

Thank you for your assistance.

Sincerely,

Paul Killpatrick
Special GED Study

Appendix E

Postcard Follow-Up

Last week a questionnaire seeking your opinion of the benefits of having achieved your GED was mailed to you. Your name was drawn from a sample of students from your particular community college.

If you have completed and returned the questionnaire, please accept our sincere thanks. If not, please do so today. The questionnaire has been sent to a small, but representative, sample of Oregon residents. It is extremely important that your reply be included in the study if the results are to accurately represent the opinions of GED Oregon graduates.

If for some reason you did not receive the questionnaire, or it became misplaced, please call me collect (503) 399-6042 and I will immediately send you another questionnaire.

Sincerely,

Paul Killpatrick
Special GED Study

Appendix F

Third Follow-Up Letter

State of Oregon
State Board of Education
700 Pringle Parkway SE
Salem, Oregon 97310

Jane Doe
1111 Place St.
Smalltown, OR 11111

Dear :

About three weeks ago I wrote to you seeking your opinion on the benefits of having achieved a GED certificate through your local community college program. At this writing I have not received your completed questionnaire. This study was undertaken as part of a doctoral research project to find out about the benefits (or lack of benefits) that graduates experience after earning a GED. Because of the significance each questionnaire has to the usefulness of this study it is essential that I receive your completed form.

For the results of this study to be truly representative of the opinions of all Oregon GED graduates it is important that each person in the sample return a completed questionnaire. In the event that your questionnaire has been misplaced, a copy is enclosed. Your cooperation is greatly appreciated.

Cordially,

Paul Killpatrick
Special GED Study

P.S. The results will be available spring 1989.

You may receive a summary of results by writing "copy of result requested" on the back of the return envelopes, and printing your name and address below it.